Abstract of the Disclosure

A method for solving an eigenvalue problem is divided into three steps of tri-diagonalizing a matrix; calculating an eigenvalue and an eigenvector based on the tri-diagonal matrix; and converting the eigenvector calculated based on the tri-diagonal matrix and calculating the eigenvector of the original matrix. In particular, since the cost of performing the tri-diagonalization step and original matrix eigenvector calculation step are large, these steps can be processed in parallel and the eigenvalue problem can be solved at high speed.